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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,111

08/10/2006

Iwo-Martin Mergler

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NXP, B.V.

NXP INTELLECTUAL PROPERTY DEPARTMENT

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1109 MCKAY DRIVE

SAN JOSE, CA 95131

EXAMINER

PAUL, DISLER

ART UNIT

PAPER NUMBER

2615

NOTIFICATION DATE

DELIVERY MODE

12/12/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/589,111	Applicant(s) MERGLER, IWO-MARTIN	
	Examiner Disler Paul	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 and 29-31 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/10/06</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1,4-16,19,22-27; 29,30-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Shiraishi (US 6,954,538 B2).

Re claim 1, Shiraishi disclose of the audio system comprising an audio signal generating means for output of an audio signal, and a remote control device for control of the audio signal generating means (fig.1 wt (300,100); the audio signal generating means having means arranged for including an identification signal within the audio output and serving to identify the audio signal generating means from which the audio signal is output (fig.1 wt (101,106); col.5 line 29-39), the remote control device being arranged to receive the identification signal and to identify the audio signal generating means from which the audio signal is output (fig.1,3 wt (306,301); col.6 line 25-64;col.4 line 27-40/based on frequency characteristic of each speaker the state of receiver output is determined).

Re claim 4, the audio system as claimed in claim 1, wherein the identification signal comprises a pseudo random noise signal (col.6 line 34-41).

Re claim 5, the audio system as claimed in claim 1, and including means arranged to determine the distance between the audio signal generating means and the remote control device (fig.1 wt (201-206, 300); col.2 line 59-64; col.6 line 45-54).

Re claim 6, the audio system as claimed in claim 5, wherein the means for determining the said distance is responsive to a timed receipt of the identification signal(col.6 line 64-67).

Re claim 7, the audio system as claimed in claim 6, wherein the remote control device is arranged to generate a timing reference signal and transmit the same to the audio signal generating means (fig.1; col.7 line 1-6).

Re claim 8, the audio system as claimed in claim 6, wherein the audio signal generating means is arranged to produce the timing

reference signal and to transmit an indication of that to the remote control unit(fig.1 wt (100); col.6 line 34-41).

Re claim 9, the audio system as claimed in claim 5, wherein the said distance between the audio signal generating means and the remote control device is determined on the basis of the timed receipt of the audio output signal from the audio signal generating means at the remote control device (fig.1 wt (301); col.6 line 34-41).

Re claim 10, the audio system as claimed in claim 1, wherein the remote control unit is arranged to transmit a controlling signal to the audio signal generating means serving to control the volume of the output audio signal in a manner responsive to a change in distance of the remote control device from the audio signal generating means (col.6 line 50-65/based on the distance to adjust the sound pressure level).

Re claim 11, the audio system as claimed in claim 10, wherein the change in distance is determined on the basis of a change in magnitude of an audio signal as received at the remote control device (col.6 line 45-54; col.5 line 55-65/based on the frequency magnate detected in remote controls).

Re claim 12, the audio system as claimed in claim 1 and including means arranged for determining the position of the remote control device relative to the audio signal generating means and on the basis of the identification signal received at the remote control device (fig.1 wt (306); col.5 line 55-60).

Re claim 13, the audio system as claimed in claim 12, wherein the audio signal generating means is arranged to provide a plurality of output channels, wherein a different identification signal is associated with the audio signal output from each channel (fig.1 wt (201-206); col.6 line 33-42/each speaker has particular test signal with certain/particular frequency and sound level characteristics).

Re claim 14, the audio system as claimed in claim 13, wherein the remote control device is arranged to transmit a signal to the audio signal generating means serving to vary the output from at least one of the said channels in response to the determined position of the remote control device relative to the audio signal generating device (col.6 line 43-65/based on the determined position the sound may be adjusted for equal level at the listener position).

Re claim 15, the audio system as claimed in claim 13, wherein the remote control device is arranged to transmit a signal to audio signal

generating means serving to vary the output from at least one of the said channels in response to a change in position of the remote control device relative to the audio signal generating device (col.2 line 20-49; fig.3/performed automatic adjustment based on remote and output channels).

Re claim 16, the audio system as claimed in claim 15, and including a plurality of audio signal generating means arranged to be located in a spaced relationship and including means for the hand-over of audio signal output there-between responsive to a control signal from the remote control device (fig.1 wt (201-206,300)), the remote control device being arranged to generate the control signal responsive to determination of the change in location of the remote control device relative to the said plurality of audio signal generating means (fig.1 wt (300); col.4 line 25-45).

Re claim 19 has been analyzed and rejected with respect to claim 1.

Re claims 22-27 have been analyzed and rejected with respect to claims 4-5; 10-13 respectively.

Re claim 29, Shiraishi disclose of the remote control device for controlling an audio signal output from audio signal generating means, the remote control device being arranged to receive and process an identification signal from the audio signal generating means and so as to identify the audio signal generating means from which an audio signal is output (fig.1 wt (100,300); col.6 line 25-64; col.4 line 27-40).

Re claims 30-31 have been analyzed and rejected with respect to claim 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3, 17, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 6,954,538 B2) and further in view of Deluca (US 6,434,239 B1).

Re claim 2, the audio system as claimed in claim 1 with the identification signal, However, Shiraishi fail to disclose of the limitation wherein the signal included within the output audio signal is arranged to be inaudible. However, Deluca disclose of an audio

system wherein the signal included within the output audio signal is arranged to be inaudible (fig.1-2 wt (60-70,80); col.2 line 25-42;col.3 line 38-50) for the purpose of providing highly directional signal within an area. Thus, taking the combined teaching of Shiraishi and now Duluca as a whole, it would have been obvious for one of the ordinary skill in the art to have modify Shirashi by incorporating the having a signal included within the output audio signal is arranged to be inaudible for the purpose of providing highly directional signal within an area.

Re claim 3, the audio system as claimed in claim 1, However, Shiraishi fail to disclose of the wherein the output audio signal is modulated with the identification signal. However, Deluca disclose of an audio system wherein similar concept of having the output audio signal is modulated with another signal (fig.1-2 wt (60,70,80); col.2 line 25-42;col.3 line 38-50) for the purpose of providing highly directional signal within an area. Thus, taking the combined teaching of Shiraishi and now Duluca as a whole, it would have been obvious for one of the ordinary skill in the art to have modify Shirashi by incorporating the having a signal included within wherein similar concept of having the output audio signal is modulated with another signal for the purpose of providing highly directional signal within an area.

Re claim 17, the audio system as claimed in claim 1, However, Shiraishi fail to disclose of the wherein the audio signal generating means is arranged such that the identification signal is included within the output audio signal and with a relatively high carrier frequency. However, Deluca disclosed of a system wherein the audio signal generating means is arranged such that the identification signal is included within the output audio signal and with a relatively high carrier frequency (fig.1 wt (70)) for the purpose of providing highly directional signal within an area. Thus, taking the combined teaching of Shiraishi and now Deluca as a whole, it would have been obvious for one of the ordinary skill in the art to have modify Shirashi by incorporating the audio signal generating means is arranged such that the identification signal is included within the output audio signal and with a relatively high carrier frequency for the purpose of providing highly directional signal within an area.

Re claim 20-21 have been analyzed and rejected with respect to claim 2-3 above.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 6,954,538 B2) and further in view of Deluca (US 6,434,239 B1) and further in view of Spencer (US 7,224,808 B2).

Re claim 18, the audio system as claimed in claim 17, However, the combined teaching of Shiraishi and now Duluca as a whole, fail to disclose of the limitation wherein the carrier frequency comprises at least a low ultrasound frequency. However, Spencer et al. disclose of a system wherein the carrier frequency comprises at least a low ultrasound frequency (col.10 line 20-30) for parametrically reproduce the audio signal with efficient power. Thus, taking the combined teaching of Shiraishi and now Duluca and now Spencer et al. as a whole, it would have been obvious for one of the ordinary skill in the art at the time of the invention to have modify Shiraishi and now Duluca as a whole, by incorporating the carrier frequency comprises at least a low ultrasound frequency for parametrically reproduce the audio signal with efficient power.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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